

## ABSTRACT OF THE DISCLOSURE

A power conversion apparatus of this invention includes a power switching device, a voltage sensor, a  
5 current sensor, and a device controller connected to the switching device, the voltage sensor, and the current sensor. The voltage sensor detects an output voltage of the switching device to output a first signal depending on the  
10 output voltage, and the current sensor detects an output current of the switching device to output a second signal depending on the output current. The device controller includes a driver connected to the switching device and a correcter connected to the driver, the voltage sensor and the current sensor. The driver outputs a third drive  
15 signal to the switching device. The correcter monitors a switching loss and a surge voltage by using the first and second signals, and corrects the third signal depending on values of the switching loss and the surge voltage.